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Does Islamic Insurance Development Promote Economic Growth? A Panel Data Analysis

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Abstract

This paper examines the impact of Islamic insurance development on economic growth. The Islamic insurance market has been experiencing tremendous growth in its activities since inception, particularly in the ASEAN and GCC markets. Using the difference GMM estimation technique for dynamic panel data model for a set of 22 countries for the period 2004 to 2012, we find a strong evidence of a positive and significant effect from the Islamic insurance activities on economic growth. We further find a robust positive and significant link between trade and economic growth, a positive but insignificant relationship between CPI and economic growth while government consumption show a negative relation. Our result provides further support for the supply-leading hypothesis in the finance growth literature.

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Keywords: Financial Development; Economic Growth; Islamic Insurance

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1. Introduction

The significance and link between financial development and economic growth have in recent years gained considerable attention in the academic setting (see Gregorio & Guidotti, 1995; Khan, 2001; Levine, 1997; Demetriades & Hussein, 1996; Zhang et al., 2012; Greenwood et al., 2013; Bittencourt, 2012; Hassan et al., 2011; Munadaca, 2009; Enisan & Olufisayo, 2009). Going by the bulk of research work conducted in this sphere, 3 main kinds of relationships can be deduced: the supply-leading; demand-following and; the bi-directional relationships.

The supply-leading relationship advocates argue that in order to achieve economic growth, a nation must strive to create financial institutions and instruments, as a result, finance induce and causality runs from financial development to economic growth. Supporters of this theory assert that by directly enhancing savings in the form of financial assets, the size and structure of financial variables bring about a rise in the capital formation and consequently real sector growth (Quartey & Prah 2008).

On the other hand, demand-following hypothesis argues that real sector growth leads to financial development rather than the argument of the supply-leading proponents. To the proponents of this hypothesis, finance does not play a major role in affecting economic growth and that it is only a consequence of growth and development in the real sector of the economy (see Quartey & Prah, 2008; Demirguc-Kunt & Levine, 2008; Ang, 2008). According to them, due to the reaction to increase in demand for financial services resulting from growth in the economy, more institutions offering financial products and services enter the market (Wolde-Rufael 2009). To give credence to their argument, the supporters of this hypothesis cited the lack of financial institutions in the third world economies as a manifestation of a shortage in the demand for the services of these institutions. Thus, as a country experiences growth in its real sector, the financial sector must evolve further with markets becoming more perfect, thereby boosting the freedom for acquiring the liquid assets for financing investment and minimizing risks (Quartey & Prah 2008). To further strengthen the support for the demand-following hypothesis, Shan (2005) maintain that the impressive growth some economies in Asia (for example Japan, China and South Korea) experienced did not in any way follow the establishment of a liberalized and well-functioning financial sector.

Contrasting the 2 hypotheses above, some researchers submit that financial development and economic growth can, and do supplement one another making real economic growth and financial deepening reciprocally causal where a bi-directional causation exists, running from financial development to economic growth (see Blackburn et al., 2005; Blackburn & Hung, 1998; Greenwood & Smith, 1997). To the advocates of this school of thought, financial development is crucial to real sector growth and naturally growth in the real sector needs an efficient and well functioning financial system. Nevertheless, researchers such as De Gregorio & Guidotti (1995) and Ram (1999) disagree that development in the financial sector results in economic growth. This position is shared by Shan & Jianhong (2006) and Shan (2005) stating that the economic crisis that engulfed the Asian market in 1997 further proofed the fact that financial development does not always influence economic growth positively.

To date, there is yet to be a consensus among researchers as regards to the direction of causality between these phenomena because the empirical evidence contained in the literature indicates a support for all the contending hypotheses (see Shan, 2005; Shan & Jianhong, 2005; Levine, 2005; Demirguc-Kunt & Levine, 2008; Ang, 2008; Aspergis et al, 2007).

Evidence from the time-series literature show that the supply-leading theory is applicable only in a small number of the economies studied, as a result, no conclusion can be drawn and generalization of the results is not an easy task (for details, see Arestis and Demetriades, 1997; Shan, 2005; Shan et al., 2001; 2002). Others have even failed to give clear evidence that a relationship even exists (for example Demirguc-Kunt & Levine, 2008; Ang, 2008). Yet other researchers have equally shown that financial development contributes economic growth significantly (see Demirguc-Kunt & Levine, 2008; Ang, 2008). Many others still maintain an absence of any positive, uni-directional causal link originating from the indicators of financial development to the growth of the real sector. Ram (1999) for instance, fail to support any view of a positive influence from financial development to economic growth while De Gregorio & Guidotti (1995) in their study also show a significant negative influence from financial development to economic growth for economies that suffer high inflation, particularly in the Latin America sub-region.

Out of the substantial research conducted in this field, there are no sufficient studies undertaken considering the insurance sector (the bulk is on banking sector and the capital market) and within the framework of Islamic finance. Chen et al. (2012) analyzed the effect of the life insurance market development on economic growth (see also Lee, 2011; Arena, 2008; Haiss & Sumegi, 2008), while Abduh & Omar (2012) considered the development in the Islamic

banking sector and how it affects economic growth in Indonesia. But, to the best of our knowledge, no study has yet analyzed how the development in the Islamic insurance sector affects economic growth across countries.

2. Literature Review: Insurance-Growth Nexus

Arena (2008) give evidence that there exists a robust relationship between the insurance market and growth with both the life and non-life segments positively and significantly causing economic growth. For the life segment, positive results are driven by industrialized economies while for the non-life segment, both the developing and industrial economies influence the results.

Carrying out a cross-country study for 29 countries in Europe to see the effect of insurance premiums on growth in GDP for the period 1992-2005, Haiss & Sümegi (2008) reveal a positive influence from life insurance on GDP for 15 EU member states, while for the new EU members, there was a larger effect for liability insurance.

Utilizing a disaggregated dataset for non-life and life insurance premiums to investigate the relationship between the activities of the insurance market and economic growth for some OECD economies, Lee (2011) show that the link between insurance and growth is significantly positive for the period 1979-2006.

3. Model Specification and Methodology

Following the study of Web, Grace & Skipper (2002), this study assesses the impact of Islamic insurance on economic growth. The main regression equation to be evaluated can be specified as thus:

$$y_u = \beta' Z_{it} + \mu_t + \eta_i + \varepsilon_{it} \qquad (1)$$

where y is economic growth, which is the dependent variable, Z represents a set of explanatory variables including proxy for Islamic insurance development, consumer price index, government consumption and trade; i and t are country-specific effect and time period respectively; μ_t and η_i denote unobserved time-specific and country-specific effects; β is the co-efficient to be estimated and lastly, ε is the error term.

We make use of the GMM developed by Arellano & Bond (1991) for dynamic panel data models. Among the advantages of the GMM technique is that it takes care of unobservable time-effects by including period-specific intercepts. It also deals with the issue of endogeneity among the independent variables.

3.1 Data Source

We utilize an unbalanced panel covering a total of 22 countries over a period of 9 years (2004 to 2012). The data for the Islamic insurance market are drawn from various annual reports of Takaful Re, an Islamic insurance provider. Other variables (trade, CPI, government consumption, and GDP) are collected from the World Bank's *WDI*.

4. Results

The main result of this study is presented in table 3, while tables 1 and 2 show the descriptive analysis of our dataset. We start by looking at the results from the diagnostic tests. The result indicate that our model is well specified because the Sargan test does not reject the over-identification restrictions indicating a presence of first-order serial correlation and the absence of a second-order serial correlation. The lagged dependent variable is statistically significant, demonstrating that the difference GMM is an appropriate estimator and the results from the empirical estimation are reliable and thus, a conclusion related to the hypothesis can be carried out. The Islamic insurance variable appears to be positive and statistically significant in determining economic growth at the 1% level, indicating that the real sector of the economy grows by 0.163% with a 1% increase in Islamic insurance growth. Turning to the control variables, trade is significant and positive at 1%, signifying that the economy grows 1.152% with a 1% increase in trade. CPI appears positive but not significant while government consumption has a

negative but insignificant effect. This result supports the supply-leading hypothesis where financial development enhances economic growth.

Our results are consistent with previous studies in the insurance-economic growth literature. Concerning the positive influence of Islamic insurance on economic growth, our result is consistent with the studies of Chen et al., (2012); Lee (2010); Arena (2008) and; Haiss & Sumegi (2008) who all find that activities and development in the life insurance market significantly affects economic growth in a positive manner. The positively significant effect obtained for trade and the negative effect from government consumption are consistent with the results obtained by Chen et al., (2012) in their study of the life insurance market and economic growth.

Table 1. Summary Statistics

Variables	Mean	SD	Minimum	Maximum
Real GDP	8.636388	1.496169	5.992714	11.43821
CPI	1.575595	0.9798904	-1.833281	3.621493
Gross Premiums	3.703467	2.648437	-2.302585	9.014568
Trade	4.77795	0.3606876	3.988399	5.510213
Government Consumption	2.517162	0.3434065	1.617276	3.147922

Table 2. Correlation Matrix

	Real GDP	CPI	Gross Premiums	Trade	Government Consumption
Real GDP	1.0000				
CPI	-0.4207	1.0000			
Gross Premiums	0.1606	0.0488	1.0000		
Trade	0.4713	-0.0547	0.4525	1.0000	
Government Consumption	0.2196	-0.2718	0.0779	0.2877	1.0000

Table 3. Result

Explanatory Variables	
Consumer Price Index	0.0051 (0.0170)
Gross Premiums	0.1632*** (0.0313)
Trade	1.1517*** (0.1899)
Government Consumption	-0.0287 (0.1722)
Lagged Dependent Variable	0.1967*** (0.0386)
AR (1)	0.371
AR (2)	0.022

Note: *Figures in parenthesis are standard errors*** demonstrate statistical significance at the 1%*

5. Conclusion

This paper examines the relationship between the development of Islamic insurance sector and economic growth utilizing a dynamic panel GMM technique for 22 economies over a 9-year period. We find strong evidence of a causal link of the Islamic insurance market development on economic growth. Islamic insurance gross premiums holds a positive and significant impact on economic growth.

Regarding the effects of trade, CPI and government consumption on economic growth, this study provides evidence that the three variables have different effects on economic growth. Trade is positive and significant; CPI is positive but not significant while government consumption is negative but insignificant.

Our result offers some beneficial insights to researchers and policy makers. First, respective governments should continue to promote the development of the Islamic insurance market as it has proven to be rewarding to the

economy. Influencers can do this by setting a target ratio for *takaful* market to the overall insurance market to be attained over a certain period. This policy has proven to be efficient in the Malaysian Islamic banking market. Secondly, as shown in our results, a well-developed Islamic insurance market may not necessarily enhance economic growth without the effects of other sectors. Consequently, if policy makers disregard some conditions that exert influence on the relationship, the economic growth may be unsustainable and the development of the Islamic insurance sector may be deficient. Therefore, as governments promote the development of the Islamic insurance market, policy makers should increase trade, and reduce government consumption. Additionally, the government needs to also consider the consumer price index.

Finally, considering the difficulty in data collection, this study is constrained to only the supply-leading hypothesis; further research needs to be conducted on other hypotheses. Also, other variables needs to be analyzed so as to examine the issue of Islamic insurance-economic growth nexus, to a large extent, culture, market structure, legal and regulatory framework, along with institutional environment.

Suitable for further investigation is to look at whether subscription to Islamic insurance affords participants the luxury to lessen the risk profile of their income and that of their household. Besides the risk channel, another researchable effect is the savings channel even though according to Chen et al., (2012) the savings channel is tricky because “not all savings are spent by the agent, they could be transferred to future generations”. Lastly, there is considerable evidence in the literature to conclude that trade liberalization is a catalyst for financial development (see Baltagi et al., 2009; Chinn & Ito, 2006). Thus, an interesting investigation would be to see whether Islamic insurance market growth and development is promoted by opening the trade market.

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